

**REMARKS**

Claims 1-22 are pending in the subject application with entry of this paper.

Claims 1-22 stand rejected.

Applicant has amended certain paragraphs in the specification to correct grammatical errors. No new matter has been added. Entry of Applicant's amendment to the specification is respectfully requested.

**Rejection under 35 U.S.C. § 103(a)**

The Office improperly rejected Claims 1-22 under 35 U.S.C. § 103(a) as being unpatentable over Bandeira in view of Schmutz. It appears that the rejection is premised upon a misunderstanding of what the references of record fairly disclose and upon a mischaracterization of the claimed subject matter. Applicant submits that the references of record fail to disclose the claimed subject matter of Claims 1-22 and respectfully requests reconsideration and withdrawal of the rejection thereof.

**1. Background**

The independent claims (Claims 1, 6, 15, 21 and 22) are generally directed to systems and methods of determining whether a signal, received at a receiver, passed through a repeater or was received directly from a mobile appliance as a function of attributes of the signal.

With reference to the specification (*see* paragraphs [0026]-[0028]), the claimed subject matter provides an augmentation to a network to assist in determining which mobile appliances served by a network are operating through the repeater. The augmentation may scan reverse link channels in the system where a mobile appliance

would transmit and measure energy and/or signal characteristics. These measurements may then be used to determine whether the mobile appliance is operating in the proximity of a repeater and/or whether a received signal has passed through a repeater or was received directly from the mobile appliance.

**2. The Office failed to examine Claims 21 and 22**

At the outset, neither Claims 21 or 22 were examined. Rather, the Office summarily rejected the subject matter of these independent claims by stating with regard to Claim 21 that “Bandiera and Schmutz teach all the limitations as discussed in Claims 6 and 15 and with regard to Claim 22 that “Bandiera and Schmutz teach all the limitations as discussed in Claims 1, 6 and 15.” This is wholly improper and pays lip service to the *Graham* factual inquiries required of the Office in its rejection.

Even assuming *arguendo* that the basis for these statements were true (and they are not!), the elements of these two independent claims are decidedly different than that of Claims 1, 6 and 15 and the summary conclusion of obviousness reached by the Office is unsupported by the MPEP. *See* MPEP §§ 2141(I)-(II), 2143. The elements of Claims 21 and 22 must be examined and addressed rather than relying upon summary conclusions drawn for the rejections of distinctly different claims. For this reason at least, the rejections of Claims 21 and 22 are improper and must be withdrawn.

**3. The Office ignored the explicit teachings of Bandiera**

Bandiera is directed to establishing a “self-synchronizing polling scheme” (*see* para [0055]) among radio transceivers (slave and master nodes) in a communication system to reduce collisions among these nodes (*see* para [0014]), but is completely silent as to any

teaching regarding determining whether signals are served by a repeater or directly received from a mobile device (whether or not this is determined as a function of measured attributes of the signal – Claims 1 and 6 – the Office admitted that Bandiera fails to teach this but improperly utilized Schmutz to supplement these deficiencies) and is completely silent as to determining the proximity of a mobile appliance to a repeater as a function of measured attributes and determining which reverse channel signals are served by repeater based at least in part by the proximity of the mobile appliance to the repeater (Claim 15 – the Office ignored the clear teachings of Bandiera in this aspect of the rejection). As discussed above, Claims 21 and 22 were improperly summarily rejected based upon the subject matter of Claims 1, 6 and 15 but for the same reasons as discussed herein, any rejection of Claims 21 and 22 premised upon Bandiera or Schmutz would be improper.

With regard to its rejection of “determining the proximity of a mobile appliance to a repeater as a function of measured attributes and determining which reverse channel signals are served by repeater based at least in part by the proximity of the mobile appliance to the repeater,” the Office ignored the clear teachings of Bandiera. For example, Bandiera discloses nodes that are the typical blind repeaters described in Applicant’s background section at paragraphs [0008] – [0009]. There simply is no disclosure or suggestion in Bandiera of measuring received signal information from a repeater or a mobile appliance (as admitted by the Office), determining whether the signal was operated on by a repeater or received directly from a mobile appliance as a function of measured attributes of the signal (also admitted by the Office) or determining the

proximity of a mobile appliance to a repeater as a function of measured attributes and determining which reverse channel signals are served by repeater based at least in part by the proximity of the mobile appliance to the repeater.

As Bandiera is completely silent on these issues, relying upon Bandiera as the primary reference in the instant rejection is wholly improper and raises an inference that the Office is utilizing impermissible hindsight in crafting its rejection by utilizing the claims as a blueprint for combining the teachings of the two cited references together. *See, e.g. Texas Instruments Inc. v. U.S. Intern. Trade Comm'n*, 854 F.2d 1327 (Fed. Cir. 1988).

To the contrary, Bandiera provides a clear disclosure of a collision-avoidance polling scheme employing time diversity – nothing more. For example, a parent transceiver acts as a master node and its one-hop (neighboring) transceivers act as slave nodes. These slave nodes may also act as master nodes to additional slave nodes thereby creating a relationship “tree”. *See* Figs. 2-4 and para [0050]. Each master node goes through a polling cycle in which the master node polls downstream receivers (each only one hop away). Figure 4 in Bandiera best depicts this time diversity polling scheme disclosed whereby a master node (1) polls one-hop slave nodes (2, 6, 3, 4) and these slave nodes poll their respective one-hop slave nodes (5, 9) and (10, 11, 12) and (7, 8). *See* Fig. 4 and para [0059]-[0061].

Ignoring the clear teachings of Bandiera, however, the Office improperly relied upon Bandiera’s mere disclosure of a master node’s measurement of signal strength to support the element of determining the proximity of a mobile appliance to a repeater as a

function of measured attributes and determining which reverse channel signals are served by a repeater based at least in part by the proximity of the mobile appliance to the repeater. Applicant respectfully inquires of the Office – if the Office admits that Bandiera fails to teach or disclose measuring received signal information or determining whether the signal was operated on by a repeater or received directly from a mobile appliance as a function of measured attributes of the signal, how then could Bandiera teach determining the proximity of a mobile appliance to a repeater as a function of measured attributes? This does not make logical sense and undermines the Office's rejection.

It is clear that the Office misunderstands the explicit disclosure of Bandiera. For example, Bandiera discloses that a master node measures the signal strength of an Attach Request message sent from a slave node in response to an NNP (New Node Poll) message. Based on the signal to noise ratio (SNR) of the respective link, the master node selects optimum parameters for future inbound transmissions for this master-slave link. *See* para [0060]. This measurement is performed by a demodulator in the master node (transceiver). *See* para [0078]. Therefore, rather than determining whether a signal has been received through a repeater or directly from a mobile appliance as a function of measured attributes of the signal, Bandiera's master node measures the signal strength of a known signal in response to a previous poll (rather than a received signal from an unknown source (e.g., a repeater or mobile appliance)) to set parameters for traffic links with the master node's respective the slave nodes. This disclosure is far from the claimed determination of whether signals are served by a repeater or received directly from a mobile appliance as a function of measured attributes of the signal (Claims 1 and 6) or the

determination of the proximity of a mobile appliance to a repeater as a function of measured attributes and whether reverse channel signals are served by repeater based at least in part by the proximity of the mobile appliance to the repeater (Claim 15).

Clearly, the Office has not met its burden of providing a *prima facie* case of unpatentability under 35 U.S.C. §103 and the rejection should be withdrawn. Further as discussed above, Bandiera cannot properly be relied upon as the primary reference. Applicant respectfully requests the withdrawal of the rejection of independent Claims 1, 6, 15, 21 and 22 and those claims dependent thereon.

#### **4. The improper combination of Bandiera and Schmutz**

The Office improperly combined the teachings of Bandiera and Schmutz to allegedly teach the claimed subject matter of Applicant's independent claims for several reasons. First, as Bandiera is completely silent regarding measuring received signal information from a repeater or a mobile appliance (as admitted by the Office), determining whether the signal was operated on by a repeater or received directly from a mobile appliance as a function of measured attributes of the signal (also admitted by the Office) or determining the proximity of a mobile appliance to a repeater as a function of measured attributes and determining which reverse channel signals are served by repeater based at least in part by the proximity of the mobile appliance to the repeater (as discussed above), it boggles the mind that the Office can somehow rely upon the disclosure in a frequency allocation plan (Schmutz) to teach this subject matter.

Second, as Bandiera is completely silent on these issues, relying upon Bandiera as the primary reference in the instant rejection is wholly improper and it appears the Office

is utilizing impermissible hindsight in crafting its rejection by utilizing the claims as a blueprint for piecing the teachings of the two cited references together.

For example, Schmutz is directed to a system and method for an automatic frequency allocation plan (*see* paragraphs [0004] and [0006]) to address the inefficiencies in manual configuration of repeater backhaul and groundlink channels (*see* paragraphs [0012], [0014] and [0051]). Upon power up, a repeater identifies an access channel to transmit a configuration request to a control facility or may scan available access channels to transmit the request. *See* paragraphs [0053]-[0054]. The request is a signal capable of identifying the requesting repeater. *See* paragraph [0055]. More specifically, the request is a short burst which includes an identifier associated with the requesting repeater. *See* paragraph [0055]. This identifier is a unique registration number or electronic serial number (ESN). *See* paragraph [0056]. The identifier is then used to configure the frequency allocation plan.

While it is apparent that Schmutz indeed teaches identifying a repeater, Schmutz's disclosure – like Bandiera – is directed to the identification of a known signal (e.g., an ESN) rather than a measured attribute or characteristic of an unknown signal (e.g., from a repeater or directly from a mobile device). Further, there is no teaching in Schmutz that would promote its combination with any reference disclosing measuring attributes or characteristics of a received signal to determine whether a signal was received directly from a mobile device or a repeater. Indeed, one of ordinary skill in the art would not look to the teachings of a frequency allocation plan (Schmutz) utilizing an ESN and combine it with Bandiera to teach the claimed subject matter. Thus, for the reasons discussed above,

the combination of Bandiera and Schmutz do not teach each and every element of Applicant's independent claims and those claims dependent thereon. Applicant respectfully requests the reconsideration and withdrawal of the rejection of Claims 1-22.

### CONCLUSION

Applicant believes that the present application is in condition for allowance and, as such, it is earnestly requested that Claims 1-22 be allowed to issue in a U.S. Patent.

If the Examiner believes that an in-person or telephonic interview with the Applicant's representatives will expedite the prosecution of the subject patent application, the Examiner is invited to contact the undersigned agents of record.

The Office is requested and hereby authorized to charge the appropriate extension-of-time fees against **Deposit Account No. 04-1679** to Duane Morris LLP.

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Dated: December 15, 2010

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